



PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN for Chocolate Mountain Aerial Gunnery Range Installation Restoration Program Sites 1, 4, 5, 7, and 8

July 2003

Niland, CA

PUBLIC COMMENT INVITED NAVY PROPOSES TO TAKE NO FURTHER CLEANUP ACTION AT FIVE FORMER WASTE DISPOSAL AREAS

The public is invited to review and comment on the Navy's proposal to take no further cleanup action at five former waste disposal areas on the Chocolate Mountain Aerial Gunnery Range (CMAGR), located in Riverside and Imperial Counties in California (see Figure 1). This proposal is called a "Proposed Plan" or "Draft Remedial Action Plan (RAP)." A public meeting is set for August 19th for the public to hear more about the proposal and voice opinions. The 30-day public comment period is from July 31 through August 29, 2003. The box at the bottom of this page has more details on the time and place of the public meeting, and on how to submit written comments. Comments will be considered and addressed before a final decision is made.

The five areas are labeled Sites 1, 4, 5, 7, and 8, and are shown on the map on Page 2. They are part of the Navy's Installation Restoration (IR) Program, which searches for, investigates, and cleans up contaminant disposals and spills resulting from previous military operations. The IR Program complies with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the federal law commonly known as "Superfund."

These five sites were formerly used by the Navy for disposal of trash and debris such as empty storage drums, scrap metal, shell casings, paint cans, glass bottles, and so forth. The Navy searched the records of what was disposed of at each site, and did not find any evidence of hazardous materials. Soil samples were analyzed from each site and no chemical contamination from the debris was found. The Navy has cleaned up the debris at Sites 1, 4, 5, 7, and 8. Debris from Sites 1 and 7 were consolidated and buried at Site 7 (per direction of the Department of Toxic Substances (DTSC) letter dated April 22, 1998, from M. Gaslan). Debris from Sites 4, 5, and 8 were consolidated and then properly disposed of off-site. Crews filled in the

holes where the debris had been excavated at Sites 1, 4, 5, and 8. Site 8 will continue to be used as a staging area for spent range targets.

The historical records and soil samples taken at each site have shown that there were no hazardous materials in the debris, there were no spills or leaks of hazardous materials to the environment, and there is no threat to human health or the environment.

Therefore, the recommendation described in this Proposed Plan/Draft RAP is to close the sites and take no further action.

This Proposed Plan presents both the Navy's proposal for No Further Action at these sites and supporting information that forms the basis for the proposal. The California Environmental Protection Agency (Cal/EPA) DTSC, as well as the Regional Water Quality Control Board (RWQCB) Colorado River Basin Region, and the California Department of Fish and Game (DFG) agree with the recommendation for No Further Action.

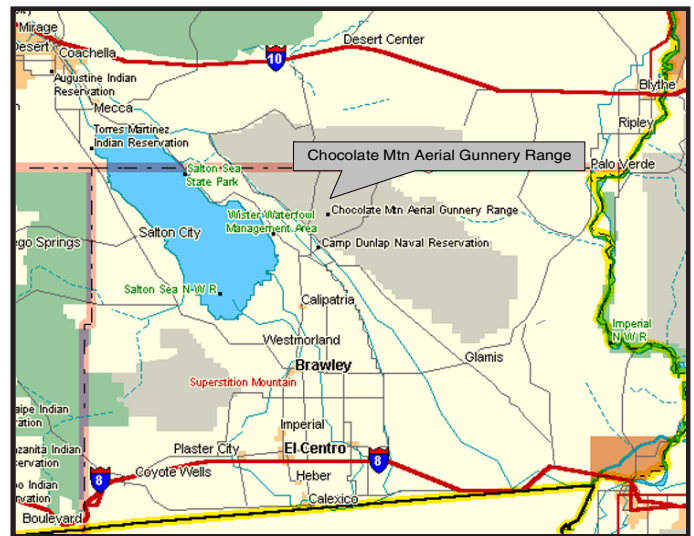


Figure 1
Location of Chocolate Mountain Aerial Gunnery Range



OPPORTUNITIES FOR COMMUNITY INVOLVEMENT

PUBLIC COMMENT PERIOD – JULY 31, 2003 TO AUGUST 29, 2003

Comments on the Proposed Plan may be mailed and **postmarked no later than August 29, 2003** to: Attn: Carol Lewis, IR Program Manager, MCAS Yuma, Box 99110, Building 228, Yuma, Arizona 85369-9110. Comments may also be sent to Ms. Lewis by fax (928-269-5216) or by e-mail (LEWISCJ@yuma.usmc.mil) no later than **August 29,**

2003. The Navy will hold a public meeting to discuss the No Further Action proposal in Niland, California. The meeting will be held at the following location and date: Niland Chamber of Commerce, 8031 Highway 111, Niland, CA 92257, on August 19, 2003 at 6:30 to 7:30 p.m. Para información en Español por favor comuníquese con Leticia Hernández del Departamento de Control de Sustancias Tóxicas, al numero (714) 484-5488.

DESCRIPTION OF CHOCOLATE MOUNTAIN AERIAL GUNNERY RANGE

The CMAGR is located in Riverside and Imperial counties in the southeastern corner of California, approximately 30 miles north of El Centro (Figure 1). The nearest community to CMAGR is locally named “Slab City,” and is located more than a mile upstream of the canal.

The CMAGR is a federally owned facility managed by the Marine Corps Air Station (MCAS) in Yuma, Arizona. The CMAGR consists of 460,000 acres of land used by the military for air-to-ground bombing. It has been used as an aerial gunnery and bombing training range since the 1940s and will continue to be used for this purpose.

The area along the central-southwestern CMAGR property boundary, where Sites 1, 4, 5, 7, and 8 are located (Figure 2), is used for training activities. This area is commonly known as Sea, Air, and Land (SEAL) Camp. SEAL Camp was constructed in 1970 and is used for desert training and readiness operations. The training operations include the application of specific SEAL-oriented skills associated with live fire of small arms and demolitions, and indirect fire of weapons such as mortars and grenade launchers.

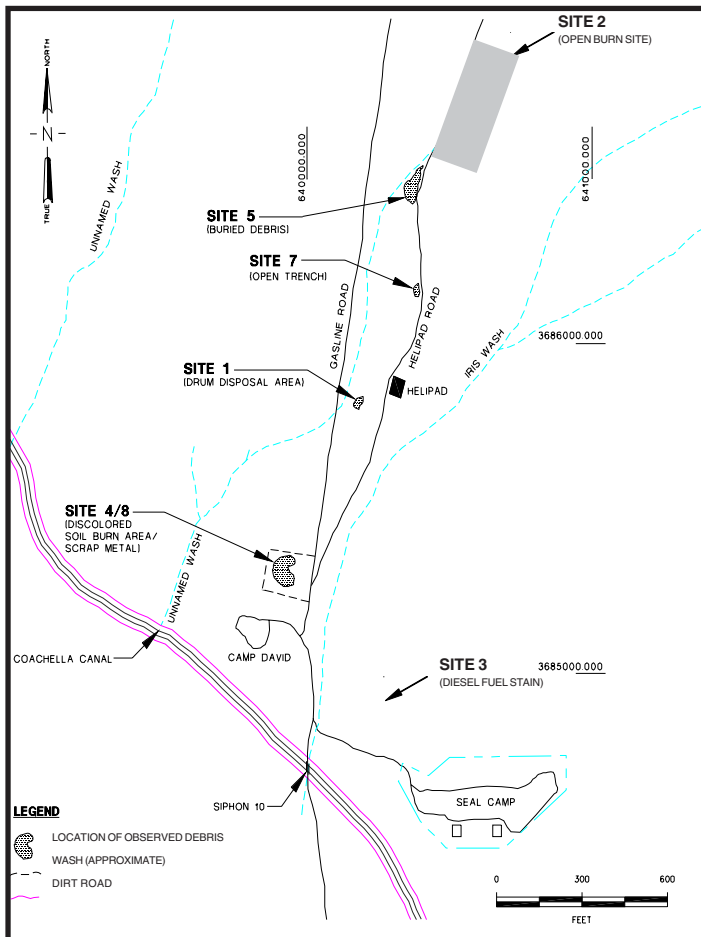


Figure 2
Locations of CMAGR IR Sites

Over time, debris, old bombing target vehicles, cleaned empty drums, and construction materials accumulated at various sites. The possibility of contamination from these sites led the Marine Corps to initiate an environmental investigation.

DESCRIPTION OF THE IR PROGRAM SITES

The following paragraphs provide a description of each IR site. Table 1 summarizes key information about each site, including soil sampling efforts, chemicals tested and found, and major conclusions and recommendations.

Site 1 – Former Drum Disposal Area

Site 1 covered an area about 100 feet by 30 feet. Approximately 30 empty, rusted drums, along with drum lids, clamp rings, vehicle parts, ammunition boxes, broken glass, and empty metal containers were found at this site. Many of the drums contained bullet holes. Records show that a drum recycler cleaned the drums before they were brought onto the range for use as targets. Site 1 was initially identified as an IR Program site because it was thought to be a disposal site; however, later interviews revealed this area to be merely a holding area for targets.

Site 4/8 – Former Discolored Soil Burn Area and Scrap Metal Pile

Site 4 was identified as a discolored soil burn area and the nearby Area B (later Site 8) was identified as a scrap metal pile.

Site 4 is approximately 30 feet by 15 feet in size. The discolored soil was determined to be a result of the burning of tires that occurred as a one-time event in the summer of 1992. Further soil investigation was conducted at Site 4 to more adequately characterize the discolored soil area. Soil samples close to the ground surface were collected to identify the nature of the discolored soil. As part of the investigation, approximately 100 cubic yards of discolored soil were removed. The site was subsequently graded.

The nearby scrap metal pile at Site 8 was approximately 60 feet in diameter and 8 feet high. The scrap metal pile was observed to contain vehicle parts, engines, metal straps, paint cans, ammunition cases, food tins, bottles, and unidentifiable metal objects. This site is one of five active staging areas for targets that are used on the CMAGR. This site is still an accumulation area for range targets that have exceeded their life expectancy and will be processed for recycling.

Table 1
Summary of Findings for IR Sites

Site Name	Soil Sampling	Chemicals Tested	Chemicals Found	Results/Recommendations
Site 1- Former Drum Disposal Area	Four boreholes at site. One surface sample and one subsurface sample in each borehole. Subsurface sample taken at 5 to 6 feet below ground surface (bgs).	VOCs, SVOCs, Metals, Pesticides, PCBs.	VOCs were all non-detect with the exception of bromochlorobenzene, which is a common analytical laboratory contaminant. SVOCs, pesticides, and PCBs were all non-detect. Metals present were aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, silver, thallium, vanadium, and zinc. Metals were reported at levels too low to present a risk and/or below background levels.	<ul style="list-style-type: none"> -No significant finding of a release to the environment. -No threat to human health or the environment. -Sites are recommended for closure
Sites 4/8 - Former Discolored Soil Burn Area and Scrap Metal Pile	Four boreholes at site. One surface sample and one subsurface sample in each borehole. Subsurface sample taken at 5 to 6 feet bgs. In addition, 21 surface soil samples and 21 soil samples from 1.5 to 2 feet bgs were collected in the vicinity of the burn area.	VOCs, SVOCs, Metals, Pesticides, PCBs, dioxins.	VOCs were all non-detect with the exception of toluene, which was present at levels too low to present a risk. SVOCs, pesticides, and PCBs were not detected at the site. Dioxins were not considered to be present at levels that posed a risk. The same metals were detected as at Site 1. Metals were reported at levels too low to present a risk and/or below background levels.	
Site 5 - Former Buried Debris Area	Six boreholes were drilled into the large debris pile at this site; one sample was taken from both the surface and from 5 to 6 feet bgs in each borehole.	VOCs, SVOCs, Metals, Pesticides, PCBs.	VOCs were all non-detect with the exception of toluene and 1,1,1-trichloroethane that were present at levels too low to present a risk. SVOCs, pesticides, and PCBs were not detected at the site. The same metals were detected as at Site 1. Metals were reported at levels too low to present a risk and/or below background levels.	
Site 7- Former Open Trench	One borehole was drilled into the trench area and one borehole was drilled into the ground slightly outside the trench; one sample was taken from both the surface and from 5 to 6 feet bgs in each borehole.	VOCs, SVOCs, Metals, Pesticides, PCBs.	VOCs, SVOCs, pesticides, and PCBs were not detected at the site. The same metals were detected as at Site 1. Metals were reported at levels too low to present a risk and/or below background levels.	
Site 2 - Former Open Burn Site	This site was not included in the analysis because it was located in an active live fire training range. The range is currently in use for live fire training and Department of Defense policy prohibits sampling due to safety concerns at active ranges.			
Site 3 - Former Diesel Fuel Stain	The site was analyzed and treated under a separate cleanup program because it involved a fuel spill. It was closed in 1994 after approximately 45 cubic yards of contaminated soil was excavated and properly disposed of, and after groundwater sampling and analysis revealed that groundwater had not been affected by the spill. The DTSC concurred with the closure of Site 3 in a letter dated December 22, 1994.			

Note: VOCs = volatile organic compounds
SVOCs = semi-volatile organic compounds
PCBs = polychlorinated biphenyls

Site 5 – Former Buried Debris Area

Surface debris observed in the area of Site 5 included scrap metal, smoke grenade canisters, flare casings, cans, bottles, other empty containers, metal ammunition boxes, shell casings, and 55-gallon drum lids. Metal debris was distributed throughout the entire area of the site at approximately 500 feet by 100 feet, but was highly concentrated in an area approximately 120 feet by 70 feet in size. Surface soil in the vicinity appeared to be extremely disturbed. Although trash and debris from SEAL Camp reportedly were deposited in this area, extensive visual inspections did not locate such items.

Site 7 – Former Open Trench

Debris was located in the area identified as the Open Trench (Site 7). The open trench was approximately 65 feet by 15 feet with debris extending to approximately 5 feet below ground surface. Debris included brake shoes, flare casings, cans, bottles, aerosol cans, plastic 5-gallon buckets, smoke grenade canisters, metal straps, ammunition boxes, an empty swamp cooler unit, and household trash. The debris located in the open trench may have been burned by igniting with petroleum products. The burning practices were ceased in 1990. There was no known hazardous waste in the trench. The soil was not stained and hydrocarbon odors were not present.

ENVIRONMENTAL INVESTIGATION OVERVIEW



The following paragraphs summarize the environmental studies conducted for IR Sites 1, 4, 5, 7, and 8. The determination that No Further Action is required at these five sites is based on site histories, visual inspections, field investigations, and results from laboratory analyses.

In 1992, the Navy conducted a study called a Preliminary Assessment of CMAGR to look for any signs of hazardous waste disposals or spills. The Preliminary Assessment included inspection of the area and a search of the historical records for evidence of past hazardous waste usage, storage, and disposal. It also included interviews with current and past CMAGR workers who might have personal knowledge of any waste disposal or spill sites.

The Navy found seven areas that needed additional study (Figure 2). Two of these, Site 2 and Site 3, were eliminated from the IR Program in 1995. Site 2 (open burn site consisting of burnt scrap metal) was not subject to IR considerations because the site was located in an active live fire training range. The range is currently in use for live fire training and Department of Defense policy prohibits sampling due to safety concerns at active ranges. The scrap metal was removed through Range Operations and Maintenance. Site 3 (diesel fuel stain) consisted of a fuel spill area approximately 10 feet in diameter beneath a 500-gallon above ground storage tank. Petroleum spills are excluded from CERCLA. However, Site 3 was closed in 1994 after approximately 45 cubic yards of contaminated soil was excavated and properly disposed of and after groundwater sampling and analysis revealed that the groundwater had not been impacted from the spill. The DTSC concurred with the closure of Site 3 in a letter dated December 22, 1994.

In 1996 and 1997, soil samples were analyzed from each of the five remaining sites for a variety of chemicals that could present a risk to human health or the environment. These included volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs), which are found in cleaning solvents like those used for degreasing and paint stripping. The analyses also looked for arsenic, chromium, lead, and several other metals, pesticides, and polychlorinated biphenyls (PCBs). PCBs are chemicals that were formerly used in electrical cables, transformers, and other commercial products.

The Navy's findings, documented in a Final Site Inspection Report in 1997, concluded that the sites do not present a risk, and recommended No Further Action. The regulatory agencies (U.S. EPA, DTSC, RWQCB, and DFG) agreed with the recommendation. However, except for U.S. EPA, their agreement was based on the condition that the Navy clean up the

surface debris at each site. DTSC also requested that the Navy take more soil samples at Site 4 because of evidence of possible contamination. This sampling was done in 2000 and the results showed no risk to human health or the environment.

The table on Page 3 details the soil samples that were taken, what analyses were performed, and what was found at each site.

SITE SURFACE RESTORATION ACTIVITIES

DTSC, RWQCB, and DFG concurred with the Navy's recommendation for No Further Action in the Final SI Report for Sites 1, 5, 7, and 8 with the condition that site surface restoration activities and recommendations from DFG for habitat management be implemented.

In 2000, the Navy consolidated various nonhazardous debris from Sites 1 and 7 and buried the debris in the open trench at Site 7, away from the desert wash. Debris from Sites 4 and 5 was consolidated with the scrap metal pile at Site 8. The consolidated debris along with the scrap metal pile at Site 8 was then removed and properly disposed of off-site. The Navy backfilled the areas where debris was removed as well as the open trench at Site 7 with up to 2 feet of native soil fill. The sites were re-graded to the natural contours. During extensive field investigation of Site 4, approximately 100 cubic yards of soil was generated and stockpiled. The soil was identified to be nonhazardous based on the soil investigation results and was disposed accordingly.

Analytical results for remaining soil confirm that there is no risk to human health or the environment at Sites 1, 4, 5, 7, and 8.

SITE RISK EVALUATED



CMAGR is and will remain an aerial gunnery range. It is unlikely that this area will be used for residential purposes. All the potable water at this site is shipped in via trucks. Water used for showers and washing dishes is obtained from the Coachella Canal; thus the primary medium of concern is soil.

The exposure pathways (i.e., routes by which humans or animals could be exposed) at CMAGR potentially include inhalation of vapors and dusts from the soil, ingestion of soil, and dermal adsorption from contact with soil. Pathways such as human ingestion (consumption) of plants and animals are not appropriate in this harsh desert environment.

Site risks were screened using the residential Preliminary Remediation Goals (PRGs), published by U.S. EPA Region 9. PRGs are tools for evaluating contaminated sites. PRGs are also used as comparison criteria because they are risk-based concentrations derived from standardized equations, combining exposure information assumptions and U.S. EPA toxicity data.

The laboratory results for samples collected at Sites 1, 5, 7, and 8 were used in the risk comparison. Laboratory results for samples collected from Site 4 during the site investigation conducted in 2000 were also used in the risk comparison. The samples were collected from each IR site at locations agreed upon by the Navy, RWQCB, and DTSC during a site walk on November 4, 1996. The PRG values were chosen as the appropriate comparison criteria because they include toxicity data for each route of exposure expected at CMAGR. All results were below residential PRGs except for arsenic and beryllium, which were within regional background levels. Therefore, the IR sites are not expected to pose risk to human health or the environment.

ECOLOGICAL RISK CONSIDERED



Ecological risk was considered qualitatively at CMAGR, even though no contamination was found at Sites 1, 4, 5, 7, and 8. Both plant and animal species were considered.

Vegetation in the CMAGR area consists mainly of creosote bush, mesquite, and some cacti. Birds and mammals have been observed in the area of the Coachella Canal, and some mammals have been observed in the mountainous areas, but none have been reported near the IR sites. The closest desert tortoise population (a protected species), estimated to be less than 50 tortoises per square mile, is approximately one-half mile north of Site 5. Because the tortoises are in a location that would not be impacted by the IR sites and their home range is small, they are not likely to be affected.

Groundwater at CMAGR is very deep, generally more than 100 feet below the ground surface and, therefore, is not accessible to wildlife as a source of drinking water.

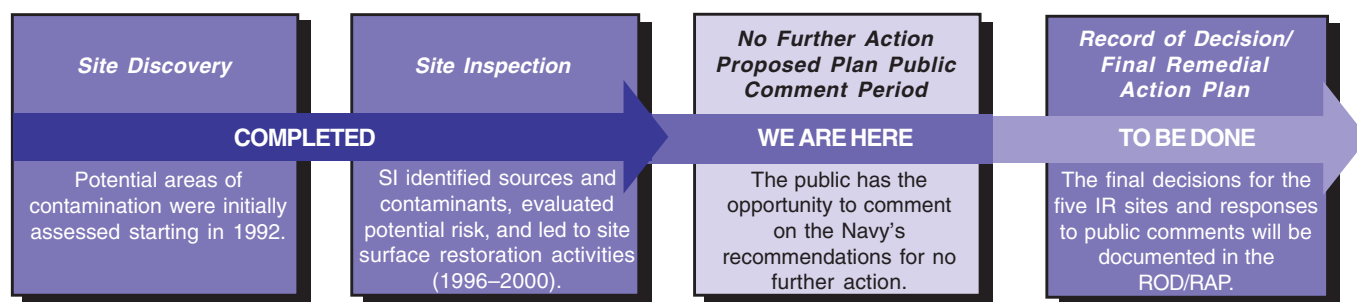
It was concluded that the CMAGR IR sites pose no risk to ecological receptors.

THE NEXT STEP

Public comments on this Proposed Plan received during the period of July 31 to August 29, 2003 will be considered in the final environmental determination for the IR sites. The Navy will provide a written response to each comment received. These will be compiled in a Responsiveness Summary that will be included in the Record of Decision/Final RAP. This document is the formal, legal agreement that details the final decision made about the sites. It will be available in the Administrative Record (see paragraph below). Page 1 provides more information on opportunities to comment on the Proposed Plan.

The documents used to identify and justify the selected action at Sites 1, 4, 5, 7, and 8 are compiled in the Administrative Record. These documents, as well as other environmental cleanup information for CMAGR, are available for public review at: Southwest Division, Naval Facilities Engineering Command, 1220 Pacific Highway, Building 129, San Diego, California 92132. The contact is Ms. Diane Silva at (619) 532-3676.

DEPARTMENT OF DEFENSE INSTALLATION RESTORATION PROCESS



FOR MORE INFORMATION

Copies of documents, updates, and other environmental cleanup information for CMAGR are available to the community locally at the Marine Corps Air Station Yuma. Please contact Ms. Carol Lewis, IR Program Manager, MCAS Yuma, Box 99110, Building 228, Yuma, Arizona, 85369-9110. Ms. Lewis can be reached at (928) 269-5637 or by e-mail at LEWISCJ@yuma.usmc.mil.

For more information about the environmental cleanup program at CMAGR or questions regarding the IR Program, contact:

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Para información en Español por favor comuníquese con Leticia Hernández del Departamento de Control de Sustancias Tóxicas, al numero (714) 484-5488.

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Ms. Carol Lewis
IR Program Manager
MCAS Yuma, Box 99110
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Yuma, Arizona 85369-9110

THE IR PROGRAM

The IR Program was established by the Department of Defense in 1980 to identify and control old hazardous waste sites. The Navy IR Program follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. This Proposed Plan/Draft RAP was developed in accordance with Section 117 of CERCLA and applicable provisions of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) and fulfills the public participation requirements of the lead agency, the Navy. This document also complies with the provisions of Section 25356.1 of the California Health and Safety Code.

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